

Abstract of the Disclosure

An apparatus for shifting a reference distance of a laser displacement sensor is capable of extending the measuring range in a laser displacement sensor having a fixed reference distance and a fixed measurement range by smoothly changing the traveling path of the laser beam by selectively inserting the transparent members having a refraction index different from that of the air into the optical path of the laser beam. The apparatus mounted on the laser displacement sensor provided with a laser beam source for generating a laser beam and a laser beam reception member, includes a transparent member having a refraction index being different from a refraction index of an air and a holder for supporting the transparent member in such a way that the transparent member is placed in an optical path of the laser beam. The transparent member changes a reference distance of the laser displacement sensor by changing the optical path of the laser beam.